

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
20 January 2005 (20.01.2005)

PCT

(10) International Publication Number
WO 2005/005248 A1

(51) International Patent Classification⁷: **B63H 11/08**

(21) International Application Number:
PCT/NZ2004/000148

(22) International Filing Date: 13 July 2004 (13.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
NZ 526666 14 July 2003 (14.07.2003) NZ
NZ 529891 1 December 2003 (01.12.2003) NZ

(71) Applicant (for all designated States except US): **PROPELLER JET LIMITED [NZ/NZ]**; C/o Domeburn Station, R.D. 7, Gore, Southland (NZ).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PATERSON, Paul, Mark [NZ/NZ]**; Domeburn Station, R.D 7, Gore, Southland (NZ). **DAVIES, Barry, John [NZ/NZ]**; 39 Orawai Road, Tuatapere, Southland (NZ).

(74) Agent: **BUCHANAN, Elspeth, Victoria**; 61 Cambridge Terrace, (P.O. Box 1250), Christchurch (NZ).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

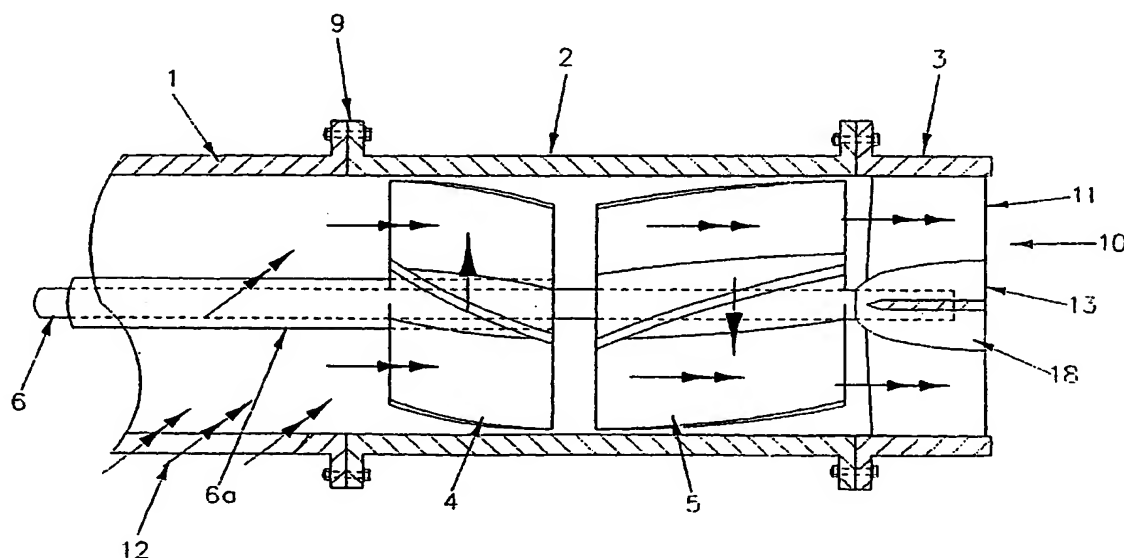
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **IMPELLER DRIVE FOR A WATER JET PROPULSION UNIT**



(57) Abstract: A water propulsion unit having an intake housing, a pump housing and an outlet with two spaced apart counter rotating impellers being located in the pump housing. The impeller blades on one impeller have an opposite pitch to the blades of the second impeller. The impellers are configured so that one of the impellers will impart less energy to the water as it passes the blades of the impeller than the second impeller.